UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,169	10/29/2003	You-Young Jung	1349.1266	7130

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EXAMINER
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ART UNIT	PAPER NUMBER
2863	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/695,169	JUNG, YOU-YOUNG
	Examiner	**Art Unit**	
	Victor J. Taylor	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 April 2007_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-17_ is/are pending in the application.

    4a) Of the above claim(s) _1 and 7_ is/are withdrawn from consideration.

5)☒ Claim(s) _2-6_ is/are allowed.

6)☒ Claim(s) _8-17_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _29 October 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _4/09/2007_.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Applicant's request for reconsideration of the finality of the rejection of the last

Office action is persuasive and, therefore, the finality of that action is withdrawn.

Applicant's submission filed on 4/02/2007 has been entered.

Claims

2.   Claims 1-17 are pending in the instant application. The applicant has canceled

claims 1 and 7. Claims 4-6, 10-12, and 14-16 were previously objected to as being

dependent on a rejected base claim in the office action of 2/24/2005. Claims 2-6 and 8-

12 were previously indicated as allowed in the office action of 9/02/2005. Therefore,

claims 2-6 and 8-17 are presented for examination.

Priority

3.   Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e)

or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

Information Disclosure Statement

4.   The information disclosure statement (IDS) submitted on 9 April 2007. This

submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the

examiner is considering the information disclosure statement.

Response to Arguments

5.   Applicant's arguments filed 12 October 2006 for the 35 USC 101 rejection of 12 July 2006 concerning claim 17 have been fully considered but they are not persuasive.

The applicant argues the wording of the preamble wherein the machine for "a machine readable storage storing a program for controlling a processor with a process" likes weight for the required limitations.

Furthermore the machine-readable storage could comprise a readable IBM punch data card as commonly used in the prior data storage arts. In addition, the claim limitations for claim 17 fail to find support for the removing step and computer processes in the drawing figures wherein the computer processes fail to discloses the necessary storage units and computer processor in the drawing. Furthermore claim 17 recites a desired machine-readable storage wherein the storage program limitation steps appear indefinite and recite a desired result for removing spurious regions and fail to recite the necessary steps in the limitation for storage of the required program.

The 35 USC 101 rejection on 12 July 2006 for claim 17 directed to non-statutory subject matter is still valid. Cancellation of the claim or corrections by amendment is required. See MPEP 2106 and United States Patent and Trademark Office Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility **OG Notices: 22 November 2005** and the 101 issues as found in the inter-net location, http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm.

6.   Applicant's arguments filed 12 October 2006 for the 35 USC 102 (b) rejection of

12 July 2006 of claims 13 and 16 and 17 have been fully considered but they are not

persuasive.

The applicant argues motion information values wherein the cited art teaches

motion for each pixel/block in column 1 and in lines 6-8 wherein the digital pixel values

represent motion information values of the digital image. Therefore the rejections of 12

July 2006 for claim 13 and 16 and 17 are still valid.

Furthermore Claim 13 recited steps for a computer computation processes

internal to the calculation steps with adjustments to a formulaic value wherein the

detecting steps and calculations steps are internal abstract computer processes and fail

to show any clear and concrete function and appear to be directed to non-statutory

subject matter with new 101 issues. Cancellation of the claims or corrections by

amendment is required.

See MPEP 2106 and United States Patent and Trademark Office Interim

Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility

OG Notices: 22 November 2005 and the 101 issues as found in the inter-net location,

http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm.

Claim Rejections - 35 USC § 101

7.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

8.   Claims 8-12 and 13-17 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory matter.

Claim 10 a method is <u>drawn to a computation method </u>for sequentially inputting

fields with method steps for detecting motion value wherein the data is stored as motion

values for each pixel block with internal computer processes for correction data values

with method steps for calculation and adding and subtracting stored values using

internal computation and processes that are internal to the computer and which fail to

show the clear concrete and tangible result or <u>provide for the data storage on a media</u>

<u>or provide useful output to the user or workstation</u>.

For example;

Claim 10 lacks a useful, concrete, and tangible result. The claim is directed to

manipulation of ideas that are abstract in nature, as performing of the method does not

result in an outcome that is for example, displayed, stored, or <u>outputted to a user</u> or

work station etc., by means of a tangible medium. Because there is not a storage media

or outputted data on a display or similar device for output for a user, the claim is non-

statutory and comprises computation processes that show no clear concrete tangible

result.

For the result to be tangible it would need to output to a user or displayed to a

user or stored on data media for later usage. Hence the claims are treated as non-

statutory functional descriptive material (See MPEP Section 2106).

Dependent claims 8 and 9 and 11 and 12 are based on rejected claim 10 and are rejected for at least the reason cited above and are rejected as they do not perform any steps further resulting in a useful, concrete, and tangible result in combination.

Any change in the claim limitations need to find support in the specification and in the drawings. The drawings are missing the computer and storage mediums. No new matter may be added.

Claim 13 is drawn to <u>a moving image processor</u> for sequentially inputting field data for detecting motion value wherein the data is stored as motion values for each pixel block with internal computer processes for correction data values with steps for calculation stored values using internal computation and processes that are internal to the computer and which fail to show the clear concrete and tangible result or provide for data storage on a media or provide useful output to the user or workstation.

For example;

Claim 13 lacks a useful, concrete, and tangible result. The claim is directed to manipulation of ideas that are abstract in nature, as performing of the moving image processor does not result in an outcome that is for example, displayed, stored, or <u>outputted to a user</u> or work station etc., by means of a tangible medium. Because there is not a storage media or outputted data on a display or similar device for output for a user, the claim is non-statutory and comprises computation processes that show no clear concrete tangible result.

For the result to be tangible it would need to output to a user or displayed to a user or stored on data media for later usage. Hence the claims are treated as non-statutory functional descriptive material (See MPEP Section 2106).

Dependent claims 14-16 are based on rejected claim 13 and are rejected for at least the reason cited above and are rejected, as they do not perform any steps further resulting in a useful, concrete, and tangible result in combination.

Any change in the claim limitations need to find support in the specification and in the drawings. The drawings are missing the computer and storage mediums. No new matter may be added.

Claim 17 is drawn to a machine readable storage with limitations for removing spurious still and motion regions during detection based on added and subtracted computations using image field data wherein the required computer and computer storage apparti using internal computation and processes that are internal to the computer and which <u>fail to show the clear concrete and tangible result or provide for data storage on a media or provide useful output to the user or workstation</u>.

For example;

Claim 17 lacks a useful, concrete, and tangible result. The claim is directed to manipulation of ideas that are abstract in nature, as performing of the moving image processor does not result in an outcome that is for example, displayed, stored, or <u>outputted to a user</u> or work station etc., by means of a tangible medium. Because there is not a storage media or outputted data on a display or similar device for output for a

user, the claim is non-statutory and comprises computation processes that show no clear concrete tangible result.

For the result to be tangible it would need to output to a user or displayed to a user or stored on data media for later usage. Hence the claims are treated as non-statutory functional descriptive material (See MPEP Section 2106).

See MPEP 2106 and United States Patent and Trademark Office Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility **OG Notices: 22 November 2005** and the 101 issues as found in the inter-net location, http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm.

Claim Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10.   Claims 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishii et al., in (US 5, 111,511).

Regarding claim 13, Ishii et al. teaches a motion detector detecting motion information values representing presence and absence of a motion for each pixel/block of an input nth image field (column 1, lines 6-8); and a motion calculator adjusting according to a formulaic value of the detected motion information values of the input nth

image field based upon motion information values of an input n+lth image field (column 5, lines 14-34).

As to dependent claim 14-15, which stand rejected as based a rejected base claim are rejected for at least the reasons cited above and Ishii et al. teaches that the motion information values are adjusted according to a formula $V(i,j) = V(i,j) + T1$ or a formula $V(i,j) = V(i,j) - T2$.

As to dependent claim 16, Ishii et al. teaches that the motion information values are adjusted according to a formula $V(i,j) = V(i,j) + T1$ or a formula $V(i,j) = V(i,j) - T2$, and wherein $V(i,j)$ represents a motion information value for jth pixel on line ith of the input nth image field, and T1 and T2 are random first and second values within a predetermined range, respectively (see Fig. 2(b)).

11.   Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Hamada et al., in (US 5,568,196).

Regarding claim 17, Hamada et al. teaches removing spurious still regions and spurious motion regions during an image field motion detection, based upon a limited added to or a limited subtracted from, pixel motion information values of a current image field using only immediately preceding and succeeding image fields to the current image field (column 3, lines 33-48).

Allowable Subject Matter

12.   Claims 10 and 13 and 17 with corresponding dependent claims would be allowable if the 35 USC 101 and 102 (b) rejections above are over come.

And wherein the primary reason for the indication of allowability material is the

inclusion of the limitations in claim 14 in that the "motion calculator calculates a mixed

valued (a) according to the adjusted detected motion information values of the input nth

image field and outputs the mixed value to a de-interlacing processor outputting an

image frame based upon the mixed value"...[and] combined with the limitations found in

claim 13, wherein the steps for "a motion detector detecting motion information values

representing the presence and absence of a motion for each pixel/block of an input nth

image field"...[and] combined with "a motion calculator adjusting according to a

formulaic value wherein the detected motion information values of the input nth image

field is based upon motion information values of an input n + 1th image field." In this

particular claimed limitation and in the particular claimed combination of limitations that

has not been found, taught, or suggested by the prior art of record that makes these

claims allowable.

13.   Claims 2-6 are allowed.

14.   The following is an examiner's statement of reasons for allowance:

Please see the previous office action on 2/24/2005 and applicant's response of

6/24/2005 for reasons for allowance.

15.   As claims 2-6 were previously indicated as allowed and claims 8-12 are now

rejected under new 101 issues and 102 (b) issues and claims 13-16 and claim 17 are

rejected under new 101 and 102 (b) issues and the allowable material has been

indicated for claims 2-6, the cancellation of claims 8-17 or the RCE with amendments to

correct the 35 USC 101 and 102 (b) issues are in order.
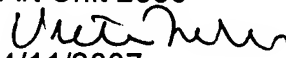
Conclusion

16.   The examiner is available for interview to discuss any questions that the

applicant may have in the instant application.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Victor J. Taylor whose telephone number is 571-272-

2281. The examiner can normally be reached on 8:00 to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John E. Barlow can be reached on 571-272-2863. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Victor J. Taylor
Examiner
Art Unit 2863
4/11/2007.

John Barlow
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